AI Planning
Exercise Sheet 7

Date: December 11, 2014
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Exercise 7.1

(a) $\Pi' = \{V, I, O, \gamma\}$ with

- $V = \{above\text{–}a, above\text{–}b, above\text{–}c, below\text{–}a, below\text{–}b, below\text{–}c\}$
  $\mathscr{D}_{above\text{–}\Upsilon} = \{A, B, C, n\} \setminus \{\Upsilon\}$
  $\mathscr{D}_{below\text{–}\Upsilon} = \{A, B, C, t\} \setminus \{\Upsilon\}$
  where $\Upsilon \in \{A, B, C\}$
- $I(a) = 1$ for $a \in \{below\text{–}b = t, above\text{–}b = A, above\text{–}a = n,$
  $below\text{–}c = t, above\text{–}c = n\}$
  $I(a) = 0$ else
- $O = \{move\text{–}X\text{–}Y\text{–}Z, move\text{–}X\text{–}Table\text{–}Z, move\text{–}X\text{–}Y\text{–}Table\}$
  $move\text{–}X\text{–}Y\text{–}Z = \langle\rangle$
  $move\text{–}X\text{–}Table\text{–}Z = \langle\rangle$
  $move\text{–}X\text{–}Y\text{–}Table = \langle\rangle$
- $\gamma = (above\text{–}c = B) \wedge (above\text{–}a = C)$

Exercise 7.2

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